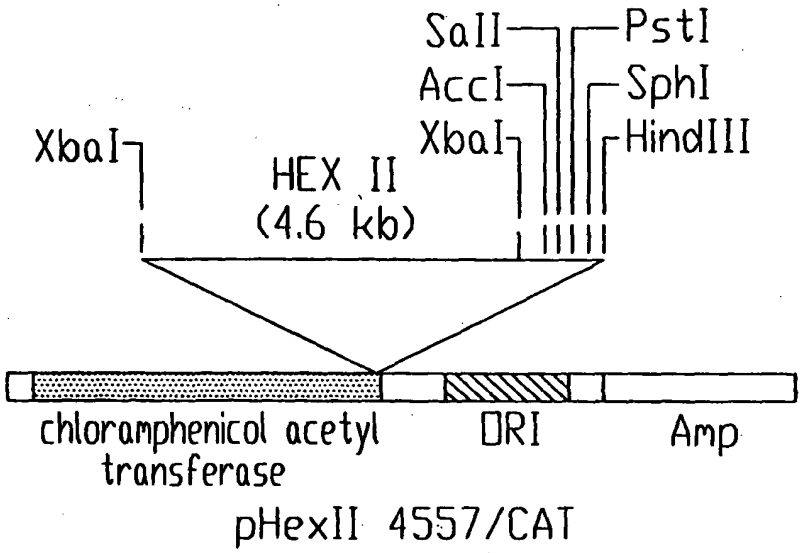

Fig. 1

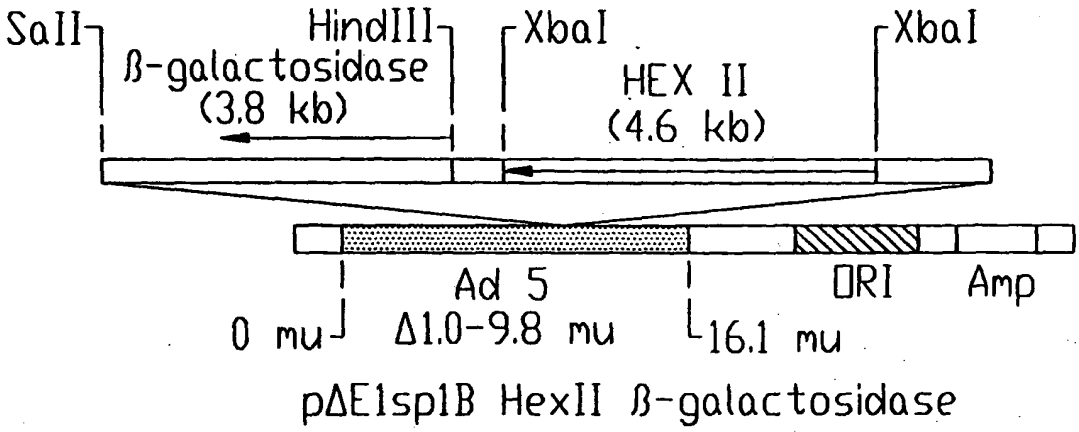

Fig. 2

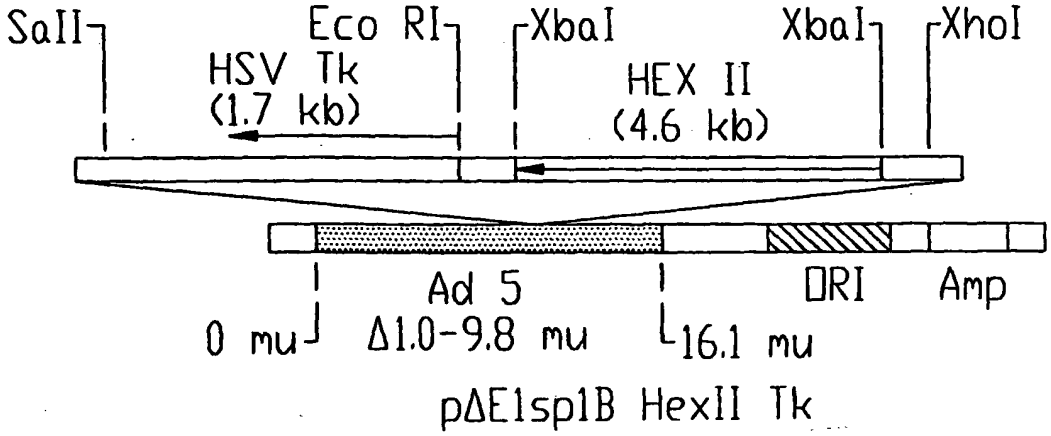

Fig. 3

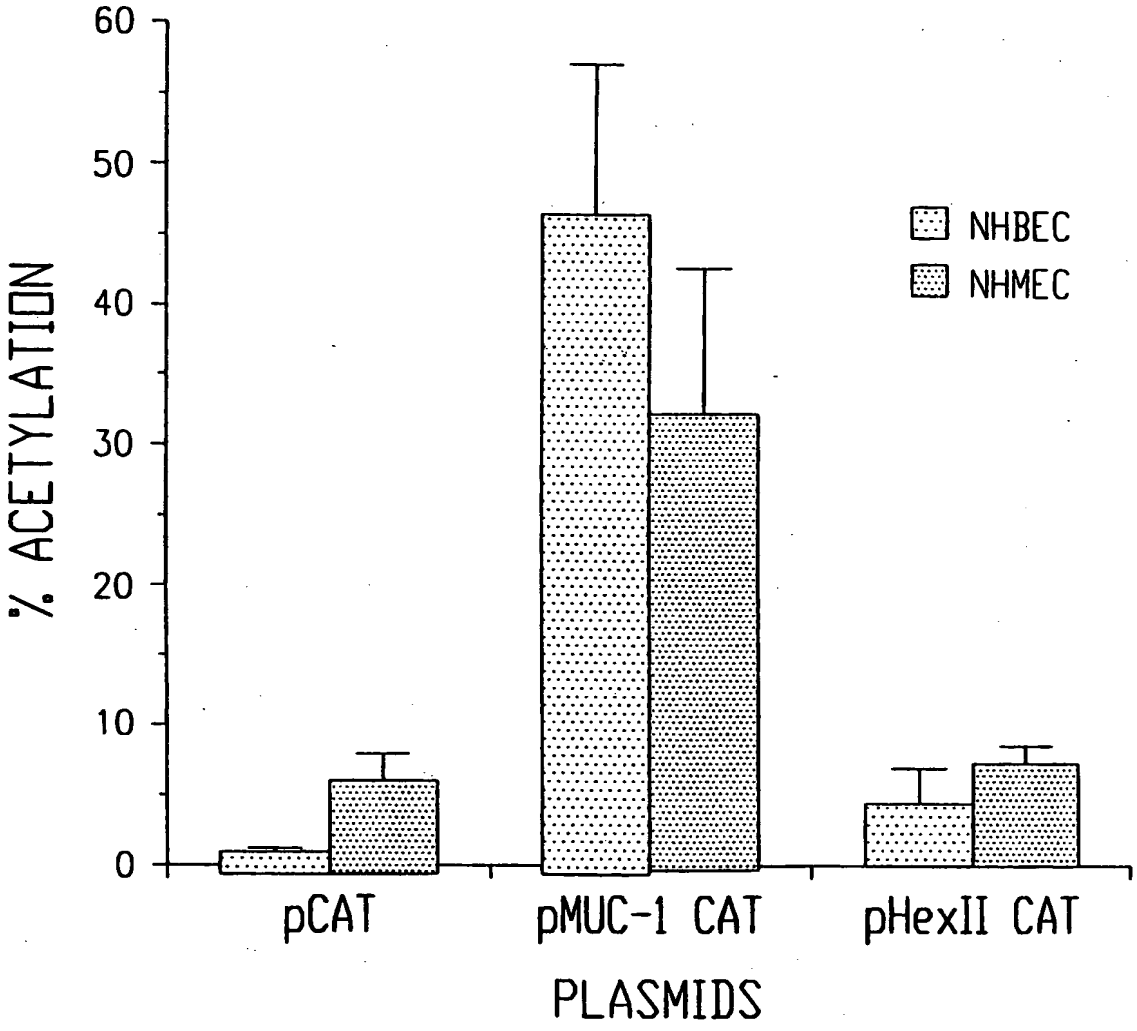
60
50
40
30
20
10
0
% ACETYLATION
NHBEC
NHMEC
pCAT
pMUC-1 CAT
pHexII CAT
PLASMIDS

Fig. 4

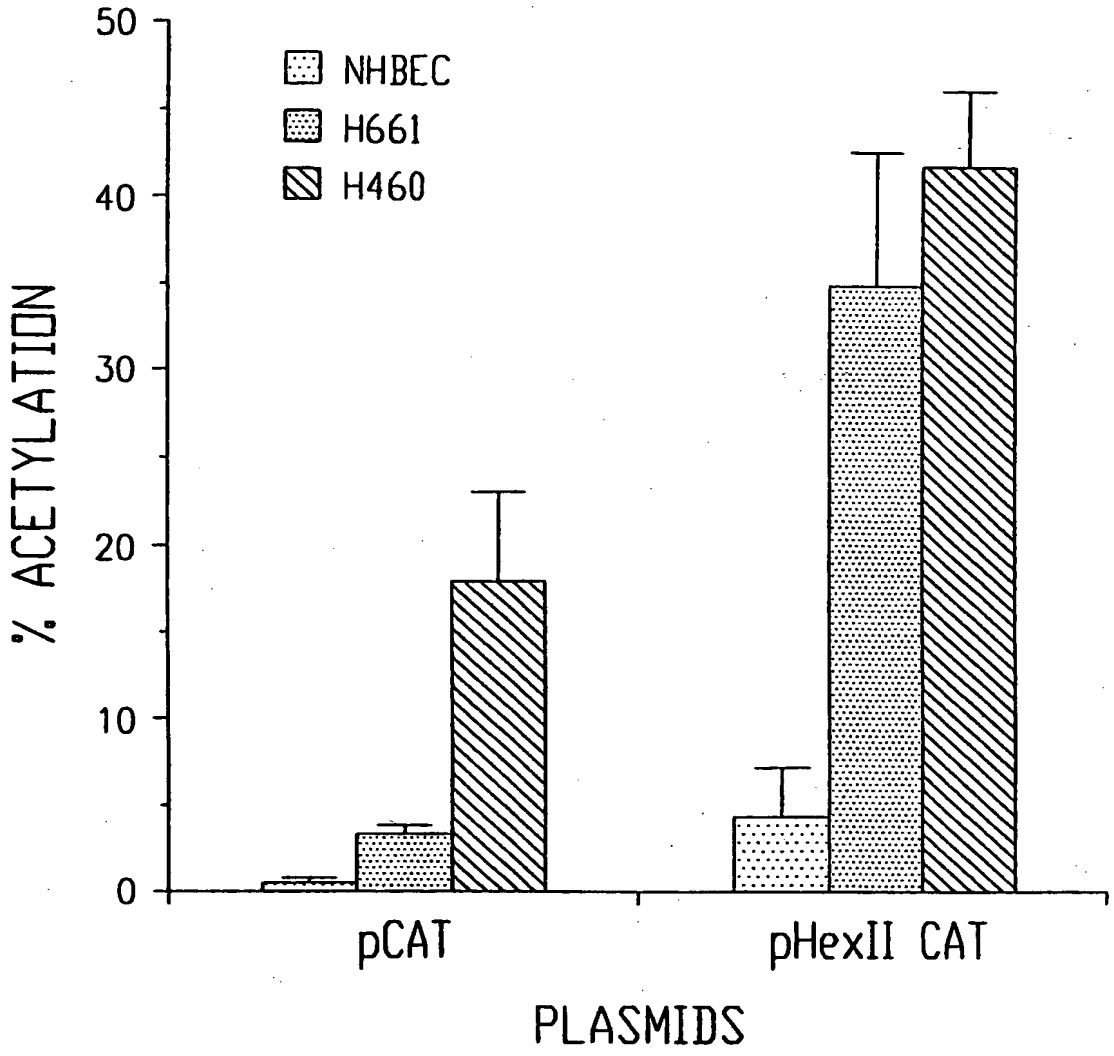
50
40
30
20
10
0
% ACETYLATION
NHBEC
H661
H460
pCAT
pHexII CAT
PLASMIDS

Fig. 5

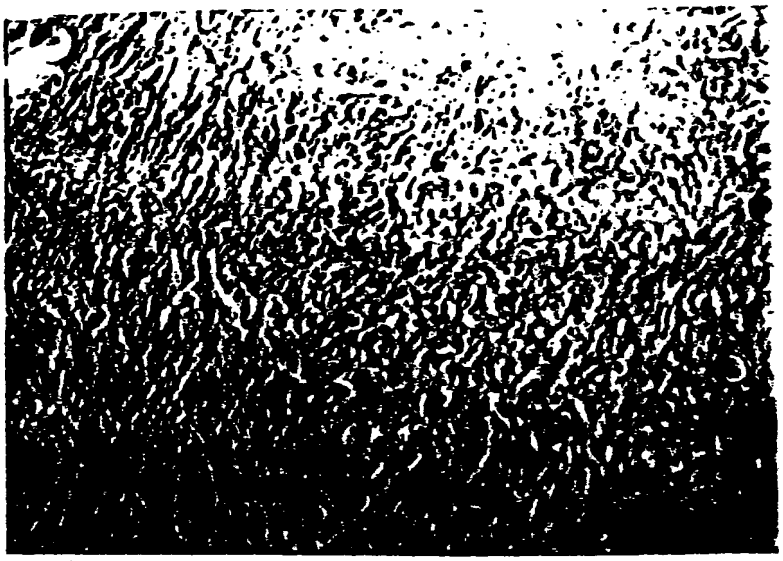

Fig. 6A

Fig. 6B

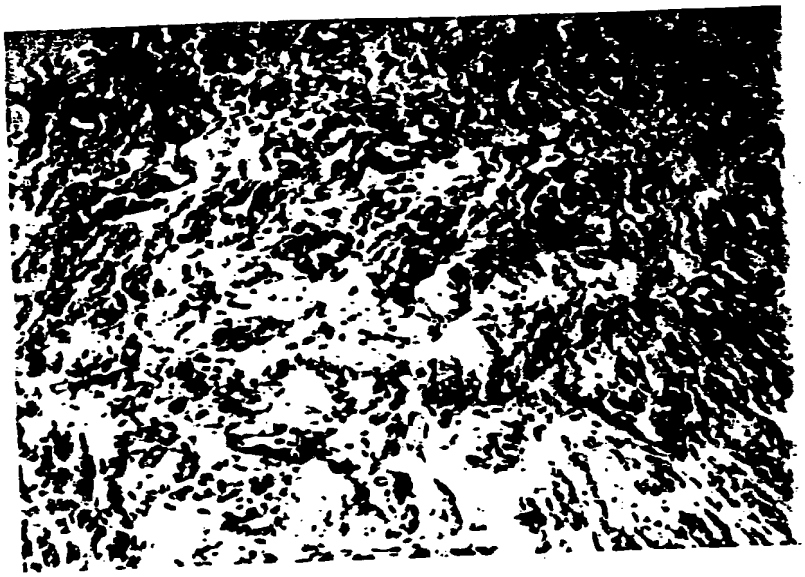

Fig. 6C

Fig. 6D

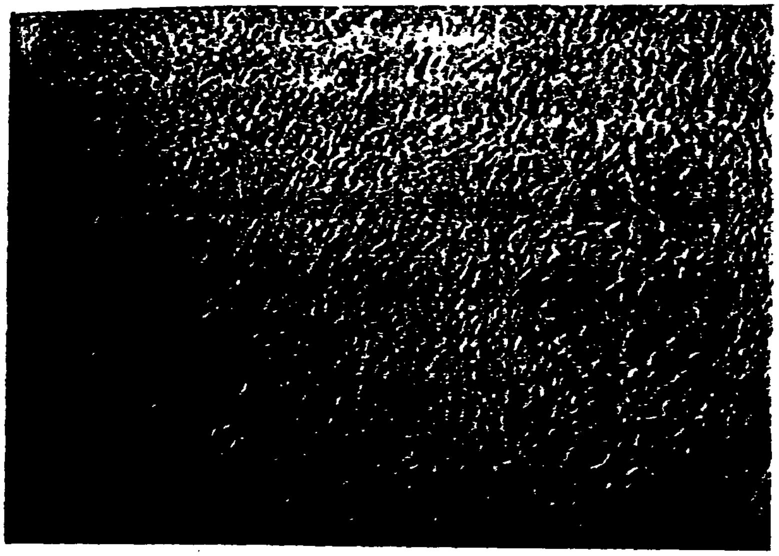

Fig. 6E

Fig. 6F

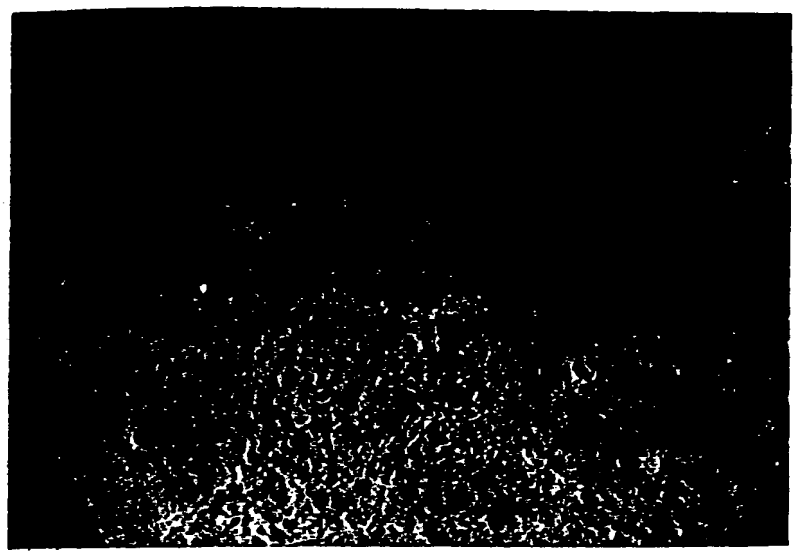

Fig. 6G

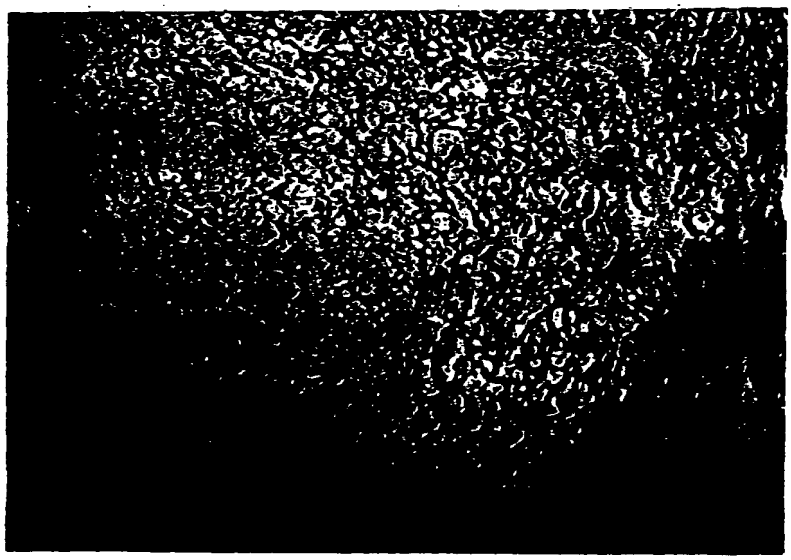

Fig. 6H

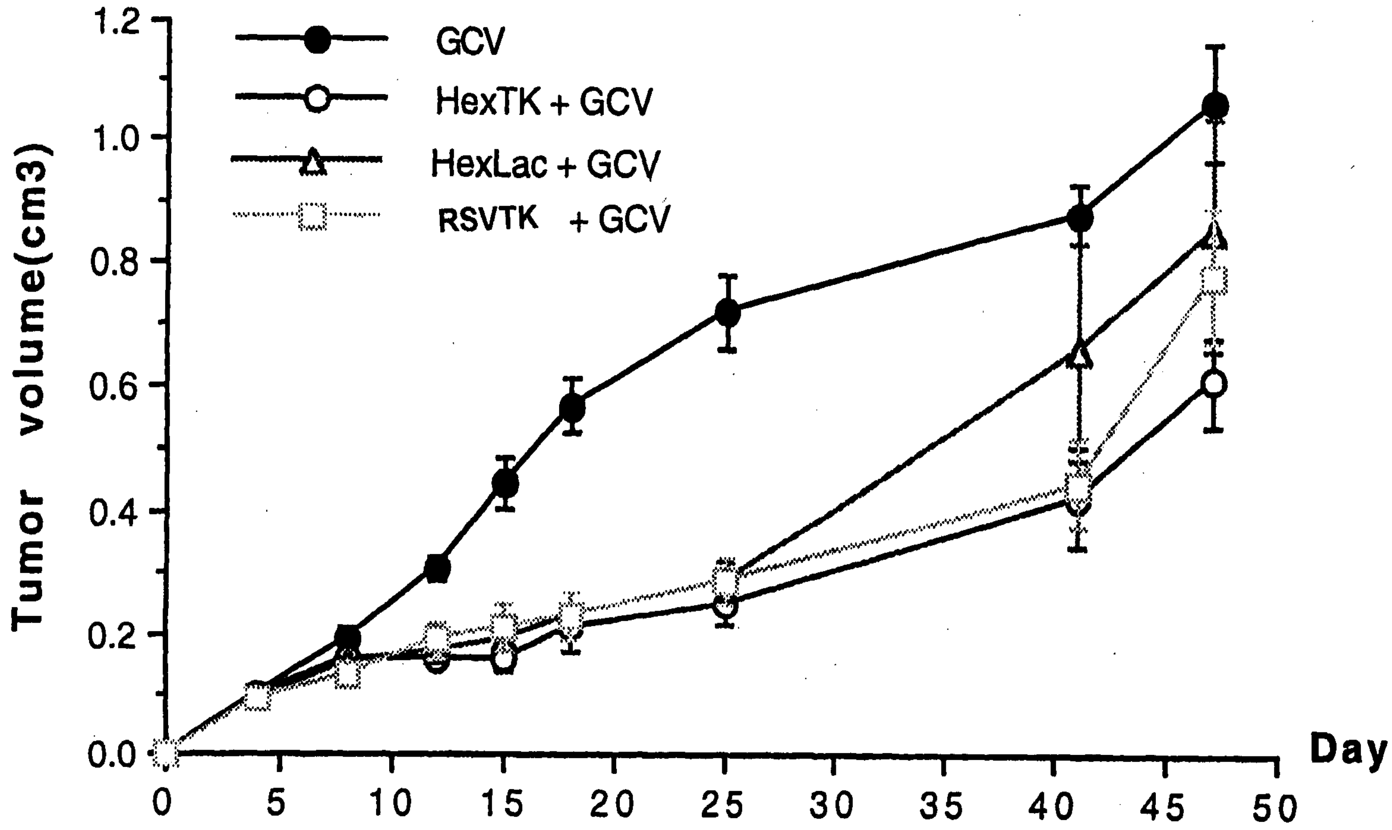
Tumor volume(cm3)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
5
10
15
20
25
30
35
40
45
50
Day
GCV
HexTK + GCV
HexLac + GCV
RSVTK + GCV

Fig. 7A

Tumor growth in DA3 mice treated with Adenovirus

	G1 GCV I.P.									G2 HexTK + GCV I.p.							
d	4	8	12	15	18	25	41	47	d	4	8	12	15	18	25	41	47
date	7/12	11/12	15/12	18/12	21/12	28/12	13/1	19/1	date	7/12	11/12	15/12	18/12	21/12	28/12	13/1	19/1
#1	0.63	0.78	0.87	0.95	1.00	1.05	1.19	1.23	#1	0.52	0.60	0.50	0.47	0.48	0.58	0.59	0.87
	0.74	0.84	0.92	1.02	1.13	1.18	1.28	1.48		0.65	0.72	0.78	0.60	0.55	0.65	0.76	0.98
#2	0.52	0.75	0.80	1.06	1.14	1.22	1.20	1.18	#2	0.60	0.63	0.56	0.54	0.58	0.66	0.93	1.00
	0.68	0.98	1.24	1.28	1.40	1.50	1.48	1.50		0.62	0.72	0.78	0.74	0.78	0.90	1.13	1.30
#3	0.48	0.53	0.66	0.78	0.75	0.88	1.01	1.18	#3	0.60	0.63	0.55	0.47	0.48	0.56	0.68	0.85
	0.62	0.64	0.78	0.98	1.24	1.33	1.43	1.64		0.70	0.74	0.68	0.62	0.68	0.78	0.82	1.02
#4	0.44	0.56	0.82	0.96	1.00	S			#4	0.58	0.67	0.67	0.58	0.60	0.67	0.73	0.90
	0.77	0.90	1.04	1.06	1.14	S				0.67	0.74	0.70	0.72	0.73	0.82	0.93	1.07
#5	0.48	0.65	0.82	0.90	1.03	1.08	1.12	1.13	#5	0.50	0.64	0.53	0.47	0.50	0.60	0.58	0.82
	0.55	0.82	1.13	1.18	1.21	1.30	1.26	1.30		0.68	0.72	0.84	0.72	1.02	0.97	1.08	1.15
#6	0.56	0.60	0.72	0.80	0.78	1.08	1.22	1.37	#6	0.58	0.72	0.77	0.74	0.75	0.74	0.76	0.94
	0.67	0.96	1.17	1.20	1.37	1.33	1.38	1.44		0.64	0.75	0.82	0.92	0.95	1.02	1.23	1.28
#7	0.53	0.62	0.65	0.73	0.88	0.85	1.04	1.19	#7	0.58	0.64	0.67	0.64	0.73	0.84	0.94	0.98
	0.58	0.84	0.94	1.08	1.18	1.32	1.38	1.47		0.63	1.04	0.97	0.88	0.96	1.08	1.21	1.20
#8	0.58	0.73	0.90	0.95	1.03	S			#8	0.45	0.62	0.68	0.62	0.90	0.66	1.18	1.28
	0.73	0.85	1.05	1.13	1.21	S				0.60	0.78	1.03	1.10	1.28	1.37	1.50	1.57
#9	0.57	0.65	0.68	0.78	0.92	1.04	1.08	1.07	#9	0.56	0.65	0.54	0.58	0.66	0.67	0.87	1.03
	0.62	0.75	1.14	1.27	1.30	1.48	1.50	1.60		0.73	0.82	0.93	0.95	0.97	0.94	1.19	1.27
#10	0.52	0.60	0.73	0.88	0.95	0.97	1.02	1.00	#10	0.52	0.64	0.58	0.58	0.57	0.65	0.93	0.96
	0.73	1.04	1.14	1.16	1.20	1.21	1.34	1.46		0.65	0.97	1.08	0.94	0.92	1.20	1.18	1.28
#11	0.50	0.57	0.60	0.64	0.77	1.08	1.13	1.25	#11	0.52	0.64	0.66	0.73	0.88	0.65	1.01	1.15
	0.84	0.97	1.28	1.34	1.54	1.50	1.87	2.25		0.58	0.83	0.98	1.06	1.06	1.10	1.48	1.46
#12	0.56	0.82	0.92	1.04	1.08	1.05	1.10	1.12	#12	0.48	0.58	0.52	0.50	0.54	0.68	0.61	0.90
	0.68	0.88	0.94	1.12	1.20	1.18	1.24	1.30		0.58	0.67	0.95	0.92	0.97	1.03	1.20	1.12
#1	0.15	0.26	0.35	0.46	0.57	0.65	0.91	1.12	#1	0.09	0.13	0.10	0.07	0.06	0.11	0.13	0.37
#2	0.09	0.28	0.40	0.72	0.91	1.12	1.07	1.04	#2	0.11	0.14	0.12	0.11	0.13	0.20	0.49	0.65
#3	0.07	0.09	0.17	0.30	0.35	0.51	0.73	1.14	#3	0.13	0.15	0.10	0.07	0.08	0.12	0.19	0.37
#4	0.07	0.14	0.35	0.49	0.57	S			#4	0.11	0.17	0.16	0.12	0.13	0.18	0.25	0.43
#5	0.06	0.17	0.38	0.48	0.64	0.76	0.79	0.83	#5	0.09	0.15	0.12	0.08	0.13	0.17	0.18	0.39
#6	0.11	0.17	0.30	0.38	0.42	0.78	1.03	1.35	#6	0.11	0.19	0.24	0.25	0.27	0.28	0.36	0.57
#7	0.08	0.16	0.20	0.29	0.46	0.48	0.75	1.04	#7	0.11	0.21	0.22	0.18	0.26	0.38	0.53	0.58
#8	0.12	0.23	0.43	0.51	0.64	S			#8	0.06	0.15	0.24	0.37	0.52	0.51	1.04	1.29
#9	0.10	0.16	0.26	0.39	0.55	0.79	0.87	0.92	#9	0.11	0.17	0.14	0.16	0.21	0.21	0.45	0.67
#10	0.10	0.19	0.30	0.45	0.54	0.57	0.70	0.73	#10	0.09	0.20	0.18	0.16	0.15	0.25	0.51	0.59
#11	0.11	0.16	0.23	0.27	0.46	0.87	1.19	1.76	#11	0.08	0.17	0.21	0.28	0.41	0.40	0.75	0.97
#12	0.11	0.30	0.40	0.61	0.70	0.65	0.75	0.82	#12	0.07	0.11	0.13	0.12	0.14	0.24	0.22	0.45
M	0.10	0.19	0.31	0.45	0.57	0.72	0.88	1.07	M	0.10	0.16	0.16	0.16	0.21	0.25	0.43	0.61
SD	0.02	0.06	0.08	0.13	0.15	0.19	0.17	0.30	SD	0.02	0.03	0.05	0.09	0.14	0.12	0.27	0.27
SEM	0.01	0.02	0.02	0.04	0.04	0.06	0.05	0.10	SEM	0.01	0.01	0.01	0.02	0.04	0.03	0.08	0.07
5x106 DA3 cells s.c. on 03/12/98(d0). Ganciclovir(GCV) 100mg/kg i.p. 09-14/12/98(d6-d11).																	
Adenovirus intratumoral injections on 08, 10/12/98(d5, d17).																	

Fig. 7B

DOSTZT"E2265Z60

Tumor growth in DA3 mice treated with Adenovirus

G3 HexLac + GCV i.p.									G4 HexRSV + GCV i.p.								
d	4	8	12	15	18	25	41	47	d	4	8	12	15	18	25	41	47
date	7/12	11/12	15/12	18/12	21/12	28/12	13/1	19/1	date	7/12	11/12	15/12	18/12	21/12	28/12	13/1	19/1
#1	0.53	0.64	0.60	0.57	0.65	0.68	0.80	0.92	#1	0.50	0.54	0.53	0.55	0.53	0.62	0.74	0.97
	0.65	0.70	0.64	0.64	0.72	0.80	0.82	1.02		0.68	0.90	1.06	0.98	1.04	1.03	1.16	1.13
#2	0.60	0.70	0.65	0.60	0.70	0.70	0.77	0.85	#2	0.48	0.65	0.60	0.57	0.53	0.70	1.06	1.28
	0.68	0.78	0.78	0.77	0.72	0.86	0.88	0.98		0.73	0.78	1.18	1.18	1.10	1.28	1.80	1.88
#3	0.58	0.66	0.57	0.63	0.66	0.73	1.04	1.16	#3	0.67	0.74	0.80	0.90	0.93	0.88	0.79	1.00
	0.65	0.68	0.80	0.86	0.95	1.08	1.50	1.64		0.78	0.80	1.06	1.12	1.16	1.18	1.38	1.45
#4	0.48	0.48	0.57	0.60	0.64	0.77	0.90	0.93	#4	0.57	0.58	0.55	0.56	0.55	0.66	0.76	0.83
	0.67	0.75	0.76	0.78	0.80	0.84	0.99	1.22		0.76	0.80	0.82	0.60	0.62	0.74	1.00	1.02
#5	0.56	0.72	0.67	0.67	0.73	0.80	1.23	1.28	#5	0.48	0.50	0.64	0.70	0.78	0.78	0.88	1.30
	0.77	0.83	0.90	0.92	1.08	1.16	1.80	1.74		0.73	0.80	0.92	0.86	0.88	1.00	1.35	1.37
#6	0.47	0.62	0.58	0.60	0.70	0.84	1.40	1.47	#6	0.45	0.45	0.45	0.43	0.40	0.48	0.54	0.60
	0.53	0.78	1.04	1.05	1.17	1.28	1.68	1.85		0.53	0.58	0.55	0.48	0.48	0.62	0.60	0.78
#7	0.52	0.60	0.72	0.75	0.68	S		S	#7	0.48	0.65	0.78	0.76	0.80	0.90	0.90	1.06
	0.72	0.78	0.80	0.94	1.18	S		S		0.80	0.77	0.88	0.87	0.85	0.98	1.02	1.13
#8	0.45	0.60	0.65	0.70	0.74	S		S	#8	0.49	0.53	0.58	0.66	0.80	0.88	0.97	1.08
	0.50	0.85	1.05	1.06	1.17	S		S		0.67	0.85	1.03	1.10	1.12	1.14	1.25	1.47
#9	0.50	D						D	#9	0.54	0.57	0.55	0.57	0.60	0.67	0.76	1.00
	0.63	D						D		0.60	0.68	0.96	1.00	1.04	1.12	1.50	1.55
#10	0.48	0.65	0.73	0.68	0.70	0.74	0.84	0.92	#10	0.47	0.50	0.52	0.50	0.50	0.57	0.71	1.12
	0.66	0.78	0.80	1.02	1.03	1.07	1.20	1.23		0.65	1.05	1.18	0.94	0.72	0.74	1.10	1.28
#11	0.54	0.62	0.72	0.68	0.70	0.73	0.85	1.03	#11	0.52	0.57	0.56	0.54	0.57	0.68	0.73	0.86
	0.58	0.70	0.80	1.06	1.12	1.28	1.20	1.42		0.60	0.68	0.93	0.88	0.96	1.02	1.40	1.32
#12	0.55	0.56	0.58	0.57	0.60	0.67	0.72	0.90	#12	0.48	0.63	0.82	0.85	0.87	0.90	0.87	1.17
	0.58	0.73	0.78	0.82	0.87	1.06	1.25	1.25		0.77	0.80	1.07	1.17	1.35	1.40	1.74	1.80
#1	0.09	0.14	0.12	0.10	0.15	0.18	0.26	0.43	#1	0.09	0.13	0.15	0.15	0.15	0.20	0.32	0.53
#2	0.12	0.19	0.16	0.14	0.18	0.21	0.26	0.35	#2	0.08	0.16	0.21	0.19	0.15	0.31	1.01	1.54
#3	0.11	0.15	0.13	0.17	0.21	0.29	0.81	1.10	#3	0.18	0.22	0.34	0.45	0.50	0.46	0.43	0.73
#4	0.08	0.09	0.12	0.14	0.16	0.25	0.40	0.53	#4	0.12	0.13	0.12	0.09	0.09	0.18	0.29	0.35
#5	0.12	0.22	0.20	0.21	0.29	0.37	1.36	1.43	#5	0.08	0.10	0.19	0.21	0.27	0.30	0.52	1.16
#6	0.06	0.15	0.17	0.19	0.29	0.45	1.65	2.00	#6	0.05	0.06	0.06	0.04	0.04	0.07	0.09	0.14
#7	0.10	0.14	0.21	0.26	0.27	S			#7	0.09	0.16	0.27	0.25	0.27	0.40	0.41	0.63
#8	0.05	0.15	0.22	0.26	0.32	S			#8	0.08	0.12	0.17	0.24	0.36	0.44	0.59	0.86
#9	0.08	D							#9	0.09	0.11	0.15	0.16	0.19	0.25	0.43	0.78
#10	0.08	0.18	0.21	0.24	0.25	0.29	0.42	0.52	#10	0.07	0.13	0.16	0.12	0.09	0.12	0.28	0.80
#11	0.08	0.13	0.21	0.25	0.27	0.34	0.43	0.75	#11	0.08	0.11	0.15	0.13	0.16	0.24	0.37	0.61
#12	0.09	0.11	0.13	0.13	0.16	0.24	0.32	0.51	#12	0.09	0.16	0.36	0.42	0.51	0.57	0.66	1.23
M	0.09	0.15	0.17	0.19	0.23	0.29	0.66	0.85	M	0.09	0.13	0.19	0.21	0.23	0.29	0.45	0.78
SD	0.02	0.03	0.04	0.06	0.06	0.08	0.51	0.56	SD	0.03	0.04	0.09	0.12	0.16	0.15	0.23	0.39
SEM	0.01	0.01	0.01	0.02	0.02	0.03	0.17	0.19	SEM	0.01	0.01	0.03	0.04	0.04	0.04	0.07	0.11

5x106 DA3 cells s.c. on 03/12/98(d0). Ganciclovir(GCV) 100mg/kg i.p. 09-14/12/98(d6-d11).

Adenovirus intratumoral injections on 08, 10/12/98(d5, d17).

Fig. 7C

Strategy for generating the HK II promoter reporter gene construct pHexII4557 CAT, and pUC/HexII/LacZ and pAdBN/HexLacZ

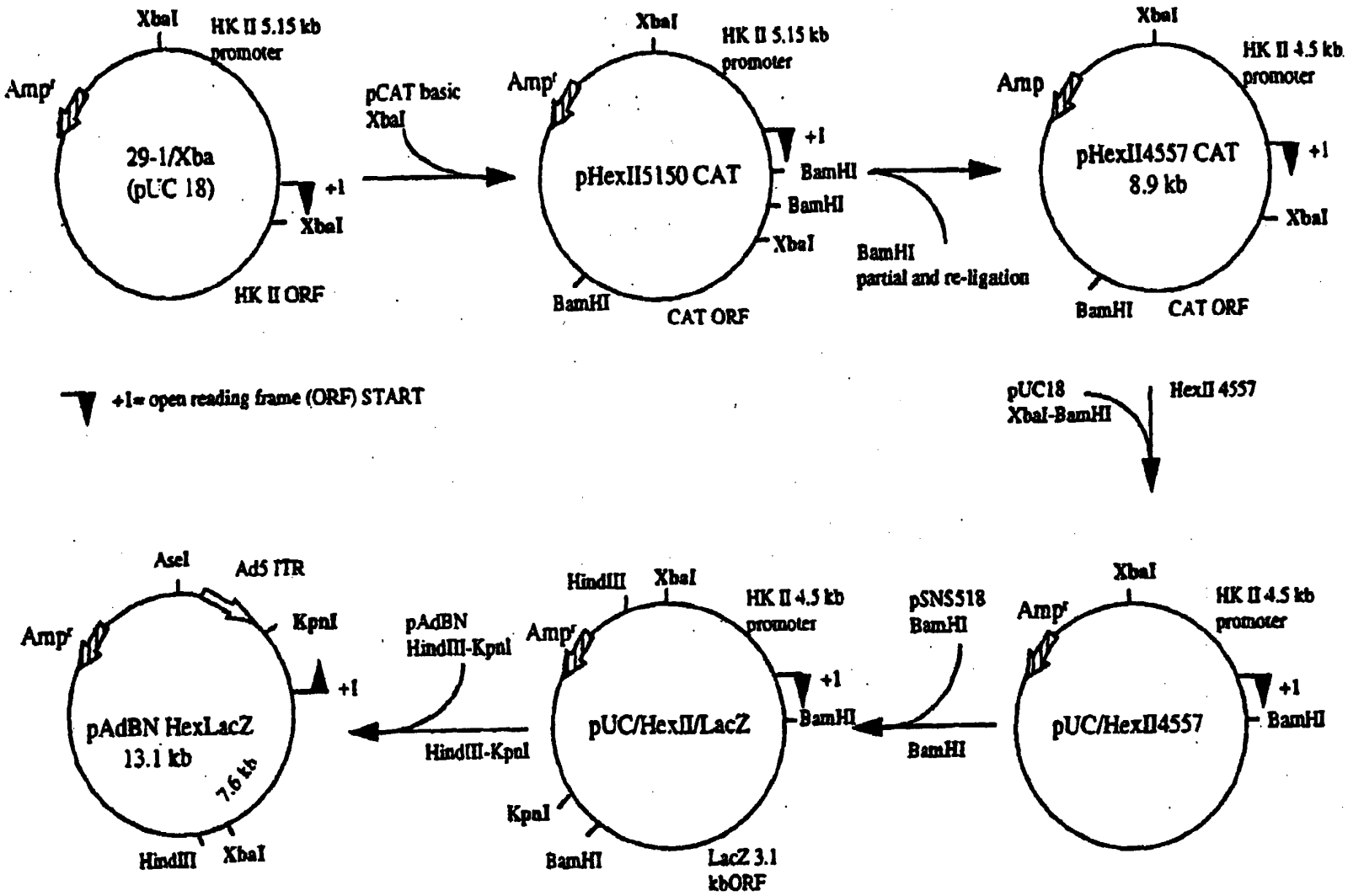

Fig. 8

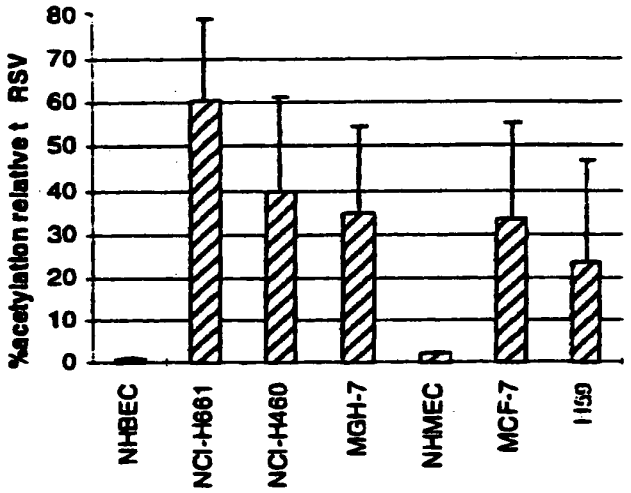

Fig. 9A

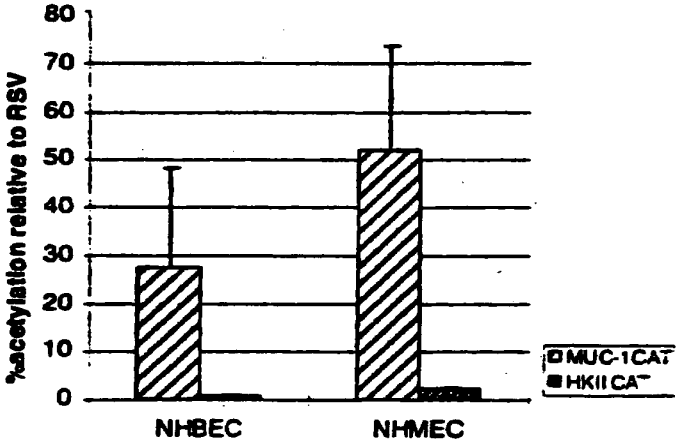

Fig. 9B

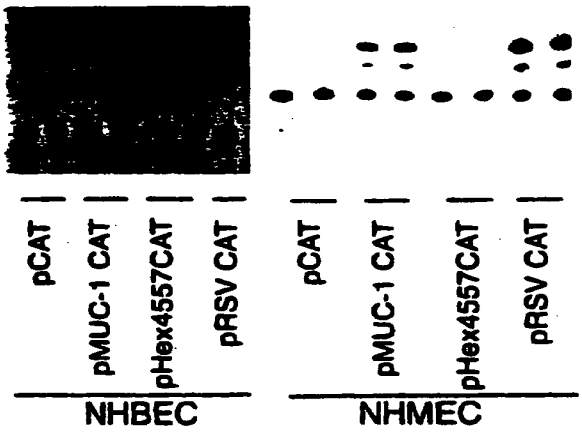

Fig. 9C

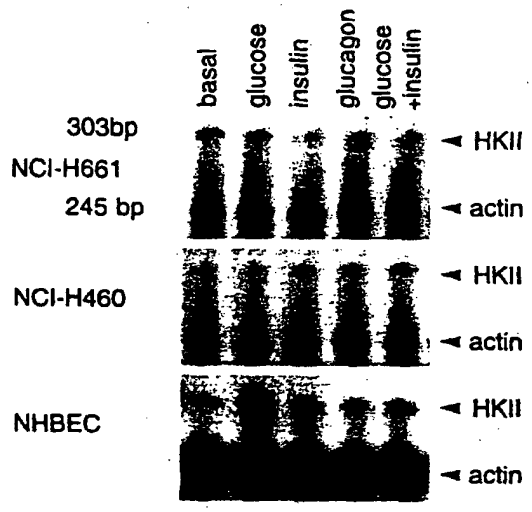

Fig. 10A

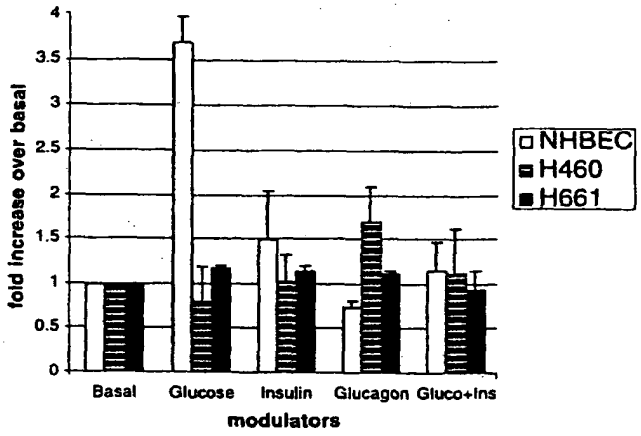

Fig. 10B

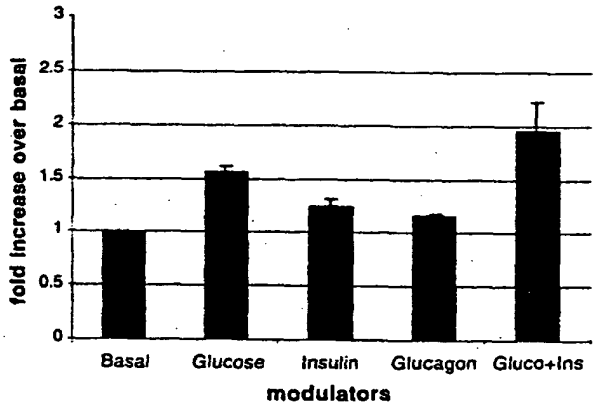

Fig. 10C

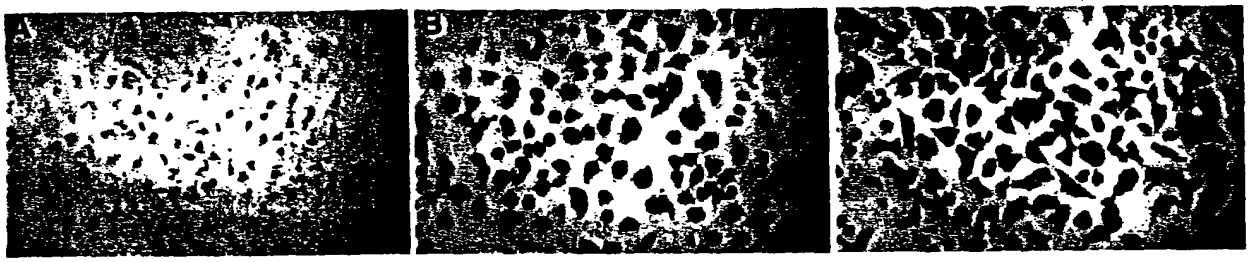

Fig. 11A Fig. 11B Fig. 11C

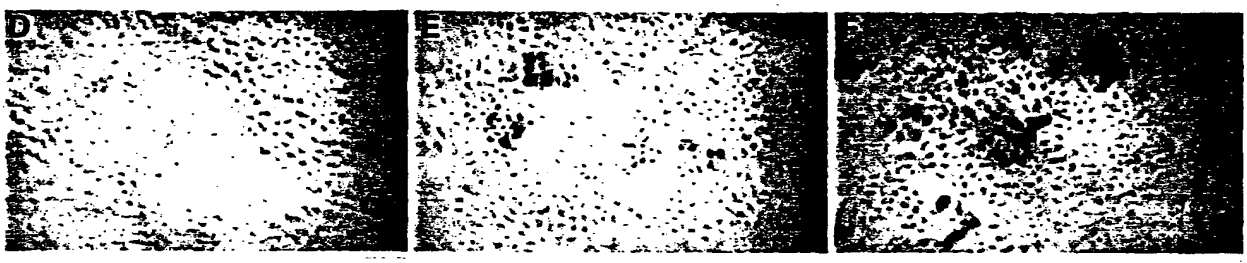

Fig. 11D Fig. 11E Fig. 11F

Fig. 11G Fig. 11H Fig. 11I

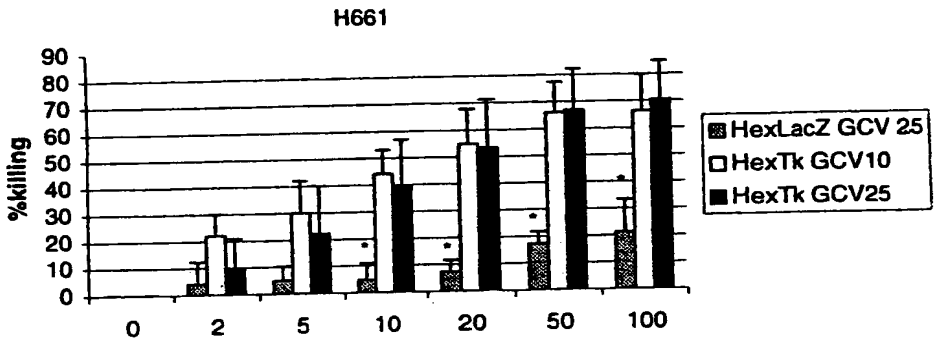

Fig. 12A

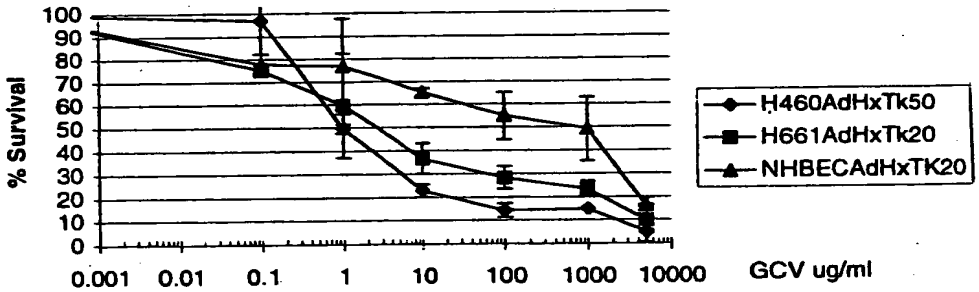

Fig. 12B

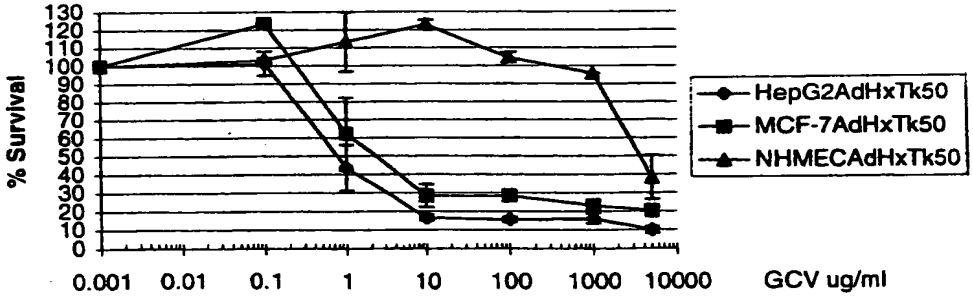

Fig. 12C